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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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JOHN F NETHERY
MCANDREWS HELD & MALLOY LTD
500 WEST MADISON STREET 34TH FLOOR
CHICAGO, IL 60661

EXAMINER	
KIM, CHONG R	
ART UNIT	PAPER NUMBER
2623	7

DATE MAILED: 08/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	09/473,003	PATEL ET AL.	
	Examiner	Art Unit	
	Charles Kim	2623	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 08/07/2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☐ The period for reply expires _____months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
   (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ they raise the issue of new matter (see Note below);
   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.
   NOTE: _____.
3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *(see attachment)*.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: _____.
   Claim(s) withdrawn from consideration: _____.
8. ☐ The proposed drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.
10. ☐ Other: _____

Jon Chang
Primary Examiner

Response to Arguments

1. Applicant's arguments filed August 7, 2003 have been fully considered but they are not persuasive.

Applicants argue (page 2) that "Huang, at Table 7.2 on page 180, lists the major functions of a PACS workstation. Table 7.2, however, does not list selecting preprocessing functions or applying preprocessing functions at the workstation". The Examiner responds by pointing out that Table 7.2 was not relied upon to teach the step of selecting preprocessing functions or applying preprocessing functions at the workstation. As noted in the previous office action, Huang teaches that the lookup tables containing the preprocessing functions can be inserted to the image header and sent to the PACS workstation, and "applied at the time of display to enhance the difference types of tissue" (page 223, section labeled "8.7.1.4 Lookup Table Generation"). Huang explains that the image is displayed on the PACS display workstation, therefore the preprocessing functions are be applied at the PACS display workstation. Furthermore, the Examiner notes that just because the step of selecting or applying a preprocessing function is not listed on Table 7.2 does not necessarily mean that the workstation is not capable of selecting or applying a preprocessing function.

Applicants further argue (pages 3-4) that "Huang does not teach, nor suggest, that these lookup tables (preprocessing functions) are selected, created, or generated at the workstation. The Examiner responds by pointing out that the claimed language does not indicate that the preprocessing functions (lookup table) are created or generated at the workstation. The closest language in the claims to this feature would indicate that a first preprocessing function is selected and applied at the workstation. In this case, Huang explains that the PACS acquisition gateway

generates brightness and contrast parameters (preprocessing functions) to form a lookup table for adjusting the brightness and contrast of the image (section 8.7.1.4). Huang further states that the lookup table containing the parameters (preprocessing functions) are inserted into the image header and sent to the PACS database (section 8.7.1.4), allowing the workstations to retrieve the images from the database. Note that the PACS database stores a plurality of images, where each image contains corresponding preprocessing functions. Therefore, the workstation selects a preprocessing function when it retrieves an image from the PACS database. Huang also explains that the preprocessing function is applied at the PACS display workstation, as noted above.

Applicants further argue (page 4) that "Huang does not teach, no suggest, that the lookup tables are applied at the display. Rather, Huang only discloses that the lookup tables may be applied at the time of display". The Examiner disagrees. The Examiner notes that at the time of display, the image and the lookup table will be located at the display, since the workstation must retrieve the image and lookup table before it can display it. Therefore, the lookup table (preprocessing function) appears to be applied at the display (workstation).

Applicants further argue (page 5) that their claimed invention (claims 2-7, 10, 13-18, 22-25) differs from the prior art because "Takeo does not relate to a PACS. In particular, Takeo does not teach, nor suggest, a picture archiving and communication system that connects to medical diagnostic imaging systems". The Examiner responds by pointing out that the Takeo reference was not relied upon to teach a PACS. As noted previously, Huang teaches a PACS. Takeo is relied upon to teach frequency and contrast preprocessing of raw image data (Takeo, col. 12, lines 18-34).

In response to applicant's argument (pages 5-6) that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Huang and Takeo are considered to be in the same field of endeavor because they are both concerned with performing image processing functions on medical images. Huang suggests improving the display of the image (Huang, page 223, right column). Takeo's method provides images which have good image quality and are easy to view, thereby improving the display of the image (Takeo, col. 2, lines 41-42). Therefore, it would have been obvious to combine the teachings of Huang and Takeo. The ordinary artisan would have been motivated to combine the teachings in order to improve the display of the image, thereby enhancing the diagnosis process.

In response to applicant's argument (pages 6-7) that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). As noted above, the suggestion to combine the references is taught by both Huang and Takeo. Therefore, since the knowledge

taken into account does not include knowledge gleaned from only the applicant's disclosure, the combination of Huang and Takeo appears to be proper.

ck
August 13, 2003

Jon Chang
Primary Examiner